

HSIP NCC SR 52 & SR 82 INTERSECTION SAFETY IMPROVEMENTS

PUBLIC WORKSHOP
APRIL 20TH, 2011

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PROJECT HISTORY

- THE SR52/SR82 INTERSECTION HAS BEEN IDENTIFIED AS A HIGH CRASH LOCATION BY TWO SEPARATE HAZARD ELIMINATION PROGRAM (HEP) STUDIES (MOST RECENTLY IN 2010)
- FEBRUARY 2009 PUBLIC WORKSHOP
- MEETINGS WITH PROPERTY OWNERS, CIVIC GROUPS, HISTORIC CONSULTATION (SECTION 106), AND SCENIC BYWAYS COORDINATION
- OCTOBER 2010 PRESENTATION TO THE KENNETTE PIKE ASSOCIATION
- PROJECT IS FEDERALLY FUNDED THROUGH HEP, BUT IS NOT FUNDED WITH STIMULUS MONEY

CRASH INFORMATION

- 84 CRASHES OCCURRED ON KENNETT PIKE NEAR THE SR82 INTERSECTION FROM 2004 TO 2009
 - APPROXIMATELY 55% WERE REAR END CRASHES
 - APPROXIMATELY 22% OCCURRED AT NIGHT
 - APPROXIMATELY 46% OCCURRED EITHER DURING THE MORNING OR AFTERNOON RUSH HOURS WHEN THE SPEED OF VEHICLES IS MOST LIKELY SLOWER

- 12 CRASHES OCCURRED ON KENNETT PIKE NEAR THE SR82 INTERSECTION IN 2010
 - APPROXIMATELY 58% WERE REAR END CRASHES
 - APPROXIMATELY 25% OCCURRED AT NIGHT
 - APPROXIMATELY 75% OCCURRED EITHER DURING THE MORNING OR AFTERNOON RUSH HOURS WHEN THE SPEED OF VEHICLES IS MOST LIKELY SLOWER

TWO DESIGN ALTERNATIVES

- SEPARATE RIGHT TURN LANE WITH BIKE LANE
- SHARED RIGHT TURN AND THROUGH LANE WITH 6' SHOULDER/BIKE LANE

COMMON ATTRIBUTES

- 11 FT WIDE LEFT TURN LANES ON KENNETT PIKE AT SR82 INTERSECTION
- IMPLEMENT DESIGN FEATURES TO HELP INFLUENCE DRIVER BEHAVIOR TO ACHIEVE SLOWER TRAVEL SPEEDS ON KENNETT PIKE THAT WOULD ULTIMATELY SUPPORT LOWER POSTED LIMITS SUCH AS:
 - CHANGE THROUGH LANES FROM 12 FT WIDE TO 11 FT WIDE
 - CHANGE 10 FT WIDE SHOULDER AREAS TO 6 FT PAVED AND 4 FT GRASS (REINFORCED)
 - DEDICATED LANES FOR CYCLISTS THROUGH INTERSECTIONS BOTH ALTERNATIVES ACCEPTED BY THE BIKING COMMUNITY
 - REDUCED TURNING LANE LENGTHS ON NORTHBOUND AND SOUTHBOUND LEGS BY 50 FEET

COMMON ATTRIBUTES cont'

- LOW PROFILE MOUNTABLE MEDIAN
- ENHANCE SIGNAGE TO IMPROVE SAFETY
- REDUCE TURNING RADIUS FROM CAMPBELL ROAD TO KENNETT PIKE TO MATCH OTHER CORNERS
- CROSSWALK ACROSS ONE LEG OF KENNETT PIKE AND ACROSS KIRK ROAD TO CONNECT EXISTING BUS STOPS
- BLACK DECORATIVE PEDESTRIAN SIGNAL POLES
- BLACK DECORATIVE MAST ARM SIGNAL POLE
- BUS STOP CONCRETE PADS AND BUS PULL OFF

ATTRIBUTES TO SEPARATE RIGHT TURN LANE WITH BIKE LANE

- 10' WIDE RIGHT TURN LANE TO SEPARATE TURNING TRAFFIC FROM THROUGH TRAFFIC
 - REDUCES POTENTIAL FOR REAR END ACCIDENTS
- 5' STRIPED BIKE LANE THROUGH RIGHT TURN LANE
- LIKELY RELOCATION OF CANTERA'S DRIVEWAY

ATTRIBUTES OF SEPARATE RIGHT TURN LANE WITH BIKE LANE cont'

- DRAINAGE MODIFICATION
- 1.7–1.9 MILLION DOLLARS
- ACCIDENT REDUCTION FACTOR OF 32.7% FOR
MOTORIZED VEHICLES (3.4 FEWER ACCIDENTS PER
YEAR)
- BENEFIT COST RATIO ANALYSIS 2.93

ATTRIBUTES OF SHARED RIGHT TURN AND THROUGH LANE WITH 6'SHOULDER/BIKE LANE

- 6' SHOULDER/BIKE LANE PROVIDES AREA FOR BIKE TRAVEL
- 1.6–1.8 MILLION DOLLARS
- ACCIDENT REDUCTION FACTOR OF 26.9% FOR MOTORIZED VEHICLES. (2.7 FEWER ACCIDENTS PER YEAR)
- BENEFIT COST RATIO ANALYSIS 2.56

LIGHTING

- LIGHTING IS NOT PROPOSED WITH THIS PROJECT
- NIGHTTIME CONDITIONS WILL BE EVALUATED IN THE FUTURE TO DETERMINE POSSIBLE LIGHTING NEEDS

STAKEHOLDERS

- **DELDOT**
- **DE GREENWAY**
MARK CHURA
- **KENNET PIKE ASSOCIATION**
JOHN DANZIESEN
ELLIE MARONEY
- **RED CLAY VALLEY SCENIC BYWAY**
JOHN GAADT
- **BRANDYWINE VALLEY NSB**
SAM HOBBS & GARY LINARDUCCI

- **SENATOR MICHAEL KATZ**
- **REP. DEBORAH HUDSON**
- **REP. GERALD BRADY**
- **LOCAL RESIDENTS**
PATTY HOBBS, JILL CANTERA,
ROB MOORES, MR. & MRS. ROLF
DESSAUER, JAY DOWNING,
CHARLIE COPELAND, BRIAN
DISABATINO, DR. & MRS.
ROBERT JORDAN, WILLIAM
ROWE, TOM HANNA, GINGER
NORTH & MR. & MRS. KEN MUSI

STAKEHOLDER RECOMMENDATIONS

- ALTERNATIVE INCLUDING SHARED RIGHT/THROUGH TURN LANE IS PREFERRED. THIS OPTION KEEPS IN LINE WITH THE BRANDYWINE VALLEY SCENIC BY-WAY GOALS.
- DEFER THE INSTALLATION OF LIGHTING AND MONITOR NIGHTTIME SAFETY AFTER THE IMPROVEMENTS ARE INSTALLED TO DETERMINE IF LIGHTING WOULD PROVIDE A CRASH REDUCTION
- EXTENSION OF CENTER MEDIAN TO GREENVILLE: ESTIMATED COST IS \$250,000.
 - FUNDING SOURCE TO BE DETERMINED
 - CANNOT BE ADDED TO EXISTING PROJECT DUE TO FEDERAL FUNDING RESTRICTIONS

PROPOSED SPEED LIMIT REDUCTION

- THE STAKEHOLDERS HAVE REQUESTED THAT DELDOT REDUCE THE SPEED LIMIT TO 35 MPH
- TRAFFIC ENGINEERS DETERMINE APPROPRIATE SPEED LIMITS BY STUDYING PREVAILING TRAFFIC SPEEDS ON ROADS STATEWIDE AND NATIONWIDE
- RESEARCH DEMONSTRATES THAT ARTIFICIALLY LOWERING SPEED LIMITS RESULTS IN DANGEROUS SPEED DIFFERENCES AMONG TRAFFIC AND REDUCES ROAD SAFETY
- SPEED AND CRASH DATA WILL BE MONITORED TO DETERMINE IF THE IMPROVEMENTS HAVE INCREASED SAFETY AS DESIGNED AND/OR ALTERED TRAFFIC SPEEDS

NEXT STEPS

PRECONSTRUCTION

- ESTABLISH PATH FORWARD FOR DESIGN BASED ON INPUT FROM WORKSHOP
- CONTINUE 106 CONSULTATION TO FINALIZE NEPA PROCESS
- FINALIZE CONSTRUCTION DOCUMENTS

POSTCONSTRUCTION

- MONITOR TRAFFIC SPEEDS TO DETERMINE IF PREVAILING TRAFFIC SPEEDS HAVE REDUCED
- MONITOR NIGHT TIME CRASHES TO EVALUATE THE NEED FOR INTERSECTION LIGHTS
- PROGRAM FUTURE CONTRACT TO IMPLEMENT THE MEDIAN AND NARROWED LANES AND SHOULDERS BETWEEN GREENVILLE AND THE LIMITS OF THIS PROJECT

THANK YOU

PROJECT WEBSITE:

http://www.deldot.gov/information/projects/rt52_rt82/